

CLAIMS

1. (currently amended) An air spring (1) for absorbing and transmitting shock loads between parts moveable relative to one another, the air spring (1) comprising a flexible cylindrical sleeve (2) which is secured at each end to form a fluid chamber (14) therein, a piston (11), the sleeve (2) being secured at one end (6) to a retainer (8) and being secured at the opposing end (9) by the piston (11), the air spring being characterized by:
the retainer (8) being integrally formed with the ~~an~~ intermediate ribbed reinforcement structure (16) to strengthen the retainer, allowing for direct mounting of the air spring (1) to one of the moveable parts, the intermediate ribbed reinforcement structure (16) of the retainer (8) comprising an outer plate (18) and an inner plate (19) which are parallel to each other, and a plurality of ribs (17 to 20) that extend between the outer plate (18) and the inner plate (19).
2. (previously presented) An air spring (1) in accordance with claim 9 wherein the retainer is further characterized by the intermediate ribbed reinforcement structure (16) comprising a plurality of extending ribs (17 or 20).
3. (previously presented) An air spring (1) in accordance with claim 1 wherein the retainer is further characterized by the ribs (17 or 20) extending the full width of the intermediate reinforcement structure (16).
4. (original) An air spring (1) in accordance with claim 1 wherein the ribbed reinforcement structure (16) is further characterized by at two sets of ribs (17 or 20) extending at angles relative to each other (20 or 17).
5. (original) An air spring (1) in accordance with claim 1 wherein the retainer (8) is further characterized by being formed from a thermoplastic material having a tensile strength in the range of 1965 to 3165 kg/cm² (28,000 to 45,000 psi), and a flex strength in the range of 2810 to 4220 kg/cm² (40,000 to 60,000 psi).
6. (original) An improved airspring (1) in accordance with claim 5 wherein the retainer

(8) is further characterized by being formed from a material selected from the following group: fiberglass reinforced nylon, long fiber reinforced thermoplastic, and short fiber reinforced thermoplastic.

7. (original) An air spring (1) in accordance with claim 1 wherein the retainer (8) is further characterized by air inlet means (21, 23) that extends through the intermediate ribbed reinforcement structure (16).

8. (cancelled)

9. (previously presented) An air spring (1) for absorbing and transmitting shock loads between parts moveable relative to one another, the air spring (1) comprising a flexible cylindrical sleeve (2) which is secured at each end to form a fluid chamber (14) therein, a piston (11), the sleeve (2) being secured at one end (6) to a retainer (8) and being secured at the opposing end (9) by the piston (11), the air spring being characterized by:

the retainer (8) formed as a unitary article and comprising a bead seat means (12) for securing the one end (6) of the sleeve (2), mounting means (13) for direct mounting of the air spring (1) to one of the moveable parts, and an intermediate ribbed reinforcement structure (16) located between the bead seat means (12) and the mounting means (13).

10. (previously presented) An air spring (1) in accordance with claim 9 wherein the intermediate ribbed reinforcement structure (16) has ribs (17 or 20) that extend the full width of the intermediate reinforcement structure (16).
11. (previously presented) An air spring (1) in accordance with claim 9 wherein the intermediate ribbed reinforcement structure (16) has two sets of ribs (17 or 20) extending at angles relative to each other (20 or 17).